

ABSTRACT OF THE DISCLOSURE

A post-processor (10) is added to a PRML read channel in a mass data storage device for improving the error rate performance. The post-processor (10) includes dominant error pattern detection filters, which include a noise-whitening filter (32) and an error pattern matched filter (34). The post-processor improves performance by whitening the colored noise which bring the noise correlation loss, and by generating an error signal when one of the dominant error patterns is detected to enable the data output to be properly corrected.